## **GISRUK Online Seminar Series 2021**

Wednesday 3<sup>rd</sup> November 2021 15:00 – 16:00 GMT

## GeoAl for Human Mobility Analytics and Location Privacy Protection



**Dr. Song Gao**, Director of Geospatial Data Science Lab, University of Wisconsin-Madison, USA



Dr. Song Gao is an Assistant Professor in Geographic Information Science at the University of Wisconsin-Madison, where he leads the Geospatial Data Science Lab. He holds a Ph.D. degree in Geography at the University of California, Santa Barbara. His main research interests include Geospatial Data Science, GeoAl and Human Mobility. He is the (co-)author of 50+ peer-reviewed journal articles with 4000+ Google Scholar citations. He is the principal investigator of multiple research grants from U.S. National Science Foundation, Wisconsin Alumni Research Foundation, Microsoft Al for Earth, etc. He serves as the Associate Editor of Annals of GIS. Editorial Board Members of Scientific Reports, PloS One, Cartography and Geographic Information Science, and guest editor for International Journal of Geographical Information Science. Dr. Gao is the current Board Member of Director at the AAG Specialty Group in Geographic Information Science and Systems and the President-Elect of Chinese Professionals in Geographic Information Sciences (CPGIS).

We have witnessed recent advances in Geospatial Artificial Intelligence (GeoAl), which is the integration of geospatial technologies and Al, especially using machine learning and deep learning methods for geographic knowledge discovery and beyond. The increasing location-based services have generated large-scale individual-level trajectory data through mobile phone tracking, wearable sensors, GPS devices, and social media. Those trajectory big data provide new opportunities to study multiscale human mobility patterns and human-place interactions. It also introduces grand challenges regarding the protection of geoprivacy and broader implications. In this talk, Dr. Gao will present his research group's latest research efforts on human mobility analytics and protecting user location privacy using various GeoAl approaches (e.g., using recurrent neural networks, generative adversarial networks, and graph convolutional networks).

**How to participate:** This event is an online event and is free-of-charge to attend. However, <u>registration is necessary.</u> A registration form is available here on Eventbrite. <u>Registration</u> **closes on Wednesday 3<sup>rd</sup> November at 12:00 GMT.** 

More information: Event Chair Peter Mooney (peter.mooney@mu.ie), Twitter @GISRUK Hashtag #GISRUKLectures